

Work Order ID 72957

Page 1

Monday, August 22, 2011 9:09:50 AM

Item ID: D206-642-541

Accept



Setup Start



Revision ID:

Item Name: Replacement Skidtube

Stop



Start Date: 8/22/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 8/29/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan:

Date: 8-22-11 Tooling:

Date:

Run Start



QC:

Date: SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D3274

D

IIN-D206-642

Rev M

100

0.00



DOCUMENT CONTROL

DC

0.00

Memo

Document Control

Photocopy bluefile & type labels per PPP D206-642-541

CHG003

N/A

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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Page 2

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

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Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

110

0.00



Skidtubes

Skidtubes

Memo

0.00

VERIFY AND INSPECT THE MATERIAL PRIOR TO USE

1- Bend FWD end of tube using bend prog D3274 FWD and foil 10 as per dwg D3274, cut fwd end of tube with saw table setup D3274.

2- remove fwd indexing ridge as per dwg D3274. Prepare for welding

3- weld fwd cap as per dwg D3274 and QSI004

AR Aluminum Rod Batch: M112860

4- grind fwd cap weld on top surface only

5- Cut AFT end of tube at 170.9" as per dwg D3274 and deburr end.

6-Drill Aft cap pilot hole using DT8025

7 -Cleco DT8025 in position and install pilot hole drill Jig DT8742A,B,C,D.
Drill 3/16" pilot holes as per Dwg D3274

8 -Remove inner indexing ridge on aft end of skidtube as per Dwg D3274 scribe batch #

9 -Open aft end cap holes to Ø0.208" as per Dwg D3274. Deburr aft end.

DP/MD

11-9-14

BB 11/09/14

BE 11/09/15

BE 11/09/15

} BE 11/09/15

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Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

114

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

116

QC10- Inspect visual per QSI004- ground welds

0.00



QC

Memo

0.00

Quality Control

120

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

TW

11-09-19

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Page 4

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code Qty

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

[Handwritten signature]

11-9-20

150

Skidtubes

0.00



Skidtubes

Memo

0.00

Skidtubes

1-Open Ø0.313" and 0.375" crossbolt spacer holes as per Dwg D3274

2-Deburr crossbolt spacer holes as per Dwg D3274 and blow out chips from inside the tube

3-Bond web in place as per Dwg D3274 & QSI 015.

A/R: Sikaflex-291 *418393*

Sikaflex expire date: *12/04/05*

Start: *11/09/20* Time: *13:45*

Finish: ☐ Time: ☐

(Adhere for 12 hours)

DL 11/09/20

DL 11/09/20

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Page 5

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Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00



11-9-22

170



Skidtubes

Skidtubes

Skidtubes

Memo

0.00

0.00

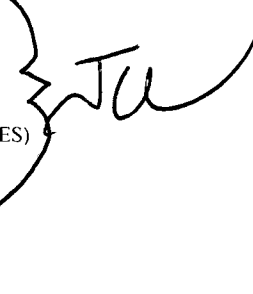
1-Bend AFT end of tube using bend prog. D3274 AFT as per dwg D3274. Install drop pins in crossbolt spacer holes to maintain web position.

SAO 11-09-22

2- DRILL PILOT HOLES FOR WEARPLATES USING D3274-1T2
OPEN HOLES TO .297" . Deburr3-DRILL TOE PIN HOLE .640" DIA AS PER DWG USING DT8935 FWD
END OF TUBEDEBURR INSIDE OF HOLE AS NECESSARY (DO NOT ENLARGE HOLES)
REMOVE ANY FOREIGN OBJECTS INSIDE OF TUBES

4- Countersink crossbolt spacer holes as per Dwg D3274

5- prepare for welding



W/O:			WORK ORDER CHANGES					
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Monday, August 22, 2011 9:09:50 AM

Page 6

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Customer:

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Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

180



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

DP 11-9-28

190



Skidtubes

Skidtubes

Skidtubes

Memo

0.00

0.00

1-Insert D2649 & D3275-1 crossbolt spacers. Weld as per QSI 004 and Dwg D3274. Remember to back drill each hole before welding the other side. Use aluminum rod

A/R□□Aluminum Rod□

117884

3-Grind cross bolt welds flush as per Dwg D3274.

BB

11/09/20

4-Counterscore 5/16" x 0.750" deep as per Dwg D3274 and deburr.

DP/

11-9-29

11/09/29

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Monday, August 22, 2011 9:09:50 AM



Page 7

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Customer:

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Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

200

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

8/22/2011

210

QC10- Inspect visual per QSI004- ground welds

0.00



QC

Memo

0.00

Quality Control

8/22/2011

220

Pressure Wash per QSI005 4.3

0.00



HandFinish

Memo

0.00

Hand Finishing

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch

XCM 8/22/2011

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Page 8

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Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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230

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



Powdercoat

Memo

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

7:30
320°F
8:00

0.00

Powder Coating

240

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

250

HandFinishing

0.00



HandFinish

Memo

0.00

Hand Finishing

1-Install Nut Plate as per Dwg D3274. Apply LPS-3 to Nut Plate and rivets.

A/RUN/AU LPS-3 M109956

2-Install inserts as per Dwg D3274. Use a drop of Sikaflex inside insert holes a

A/RUN/Sikaflex-291 M1118392

Sikaflex expire date: 12/05

1X M 11/09/30

1 of 11 11/09/30

1 of 11 11/09/30

M118439

W/O:		WORK ORDER CHANGES					
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Page 9

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Reference:

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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260

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

Inspect Nut Plate & Inserts

270

HAND FINISHING RESOURCE #1

0.00



HandFinish

Memo

0.00

Hand Finishing

1-Install wearpads & gaskets as per Dwg D3274.

2-Install ring as per Dwg D3274

A/R ☐ Sikaflex-291 ☐ M118393

Sikaflex expire date: ☐ 12/05

3-Inspect for foreign objects as per QSI 024

4-Spray inside of tube on both sides of web with LPS-3

A/R LPS-3 Batch: N/A

5-Install Aft Cap and seal with Sikaflex. Clean excess adhesive.

A/R ☐ Sikaflex-291 ☐ M118393

Sikaflex expire date: ☐ 12/05

8/22/30

Ⓢ

1-Ⓢ M 8/22/30

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Monday, August 22, 2011 9:09:50 AM



Page 10

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Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

280

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

S 11/09/30



Quality Control

290

Identify as per dwg & Stock Location: _____

0.00



Packaging

Memo

PPA 73121

0.00

Packaging

11/9/30

300

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

11/9/30

MF 11-09-30

W/O:		WORK ORDER CHANGES					
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Picklist Print

Monday, August 22, 2011 9:09:57 AM

Page 1

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Parent Item Name: Replacement Skidtube

Start Date: 8/22/2011

Required Date: 8/29/2011

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:B 05.09.23 Revised per D206-642 Rev. J KJ/JLM
 IPP Rev:C 07-02-23 Added SS Wearplates & Gaskets JLM
 IPP Rev:D 07-12-06 replace NAS1515H3L to D3672-1 DD
 IPP Rev:E 08-04-17 as per PAR 08-015 DD verified by:EC
 IPP Rev:F 08-06-02 add comment DD verified by:EC
 IPP Rev:G 08-10-09 revise details DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2600-1-190 Manufactured No



Extrusion Round 3" 206

Location

HALL

59874

69622

Loc Qty

83.4

24.4

59

Loc Code

① DP 11-9-14

D3285-1 Manufactured No



Cap

Location

LG002

52511

52647

Loc Qty

92

45

47

Loc Code

1

D3282-041 Manufactured No



Float Web (206L/407)

Location

LG

70050

69714

Loc Qty

4

4

Loc Code

1

OK 11/09/20

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Monday, August 22, 2011 9:09:58 AM

Page 2

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Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 8/22/2011

Required Date: 8/29/2011

Start Qty: 1.00

Required Qty: 1.00

D2649

Manufactured No

190

Each

46.0000

12

12



Cross Bolt Spacer



11.09.28

Location

Loc Qty

Loc Code

LG 373857 34
68224 2
71355 2
72704 30
LG001 12
65317 1
68507 11

12

D3275-1

Manufactured No

190

Each

280.0000

12

12



Crossbolt Spacer



11.09.28

Location

Loc Qty

Loc Code

LG 161
72123 161
LG002 119
66930 106
68946 13

12

CR3212-4-03

Purchased No

250

Each

1,166.000

2

2



Cherry Rivet



11.09.30

Location

Loc Qty

Loc Code

FP-B 2
110139 2
ST311 1164
114859 1164

12

Monday, August 22, 2011 9:09:58 AM

Shop Packet Print

Page 2

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Parent Item Name: Replacement Skidtube

Start Date: 8/22/2011

Required Date: 8/29/2011

Start Qty: 1.00

Required Qty: 1.00

D3415-041 Manufactured No

250 Each

52.0000

1

1



Nut Plate



u109130

Location

Loc Qty

Loc Code

ST053

52

33842

8

67605

44

x1

CCR264SS3-3 Purchased No

250 Each

463.0000

2

2



Cherry Rivet



u109130

Location

Loc Qty

Loc Code

FP-B

2

113973

2

ST311

461

117086

35

117849

426

x2

ALS4-1032-130 Purchased No

250 Each

1,837.000

78

78



Insert



u109130

ALS7 - 1032-136

Location

Loc Qty

Loc Code

ST281

370

118386

370

ST282

1467

117717

54

118237

1157

118312

256

x78

W/O:		WORK ORDER CHANGES					
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Page 4

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Required Date: 8/29/2011



Start Qty: 1.00

Required Qty: 1.00

D3536-15	Manufactured	No	270	Each	24.0000	1	1
							<u>all u109130</u>
Gasket							



<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

FP011	24	
71586	13	
<u>72881</u>	11	<u>X1</u>

D3536-23	Manufactured	No	270	Each	21.0000	1	1
							<u>all u109130</u>
Gasket							



<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

FP011	21	
43406	1	
69902	8	
<u>71579</u>	12	<u>X1</u>

D3536-35	Manufactured	No	270	Each	26.0000	1	1
							<u>all u109130</u>
Gasket							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

FP012	26	
<u>71587</u>	14	
72882	12	

D3536-39	Manufactured	No	270	Each	23.0000	1	1
							
Gasket							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

FP015	23	
<u>69760</u>	23	<u>X1</u>

all u109130

Monday, August 22, 2011 9:09:58 AM

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Page 4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Monday, August 22, 2011 9:09:58 AM

Page 5

Work Order ID: 72957

Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 8/22/2011

Required Date: 8/29/2011



Start Qty: 1.00

Required Qty: 1.00

D3535-15	Manufactured	No	270	Each	12.0000	1	1
							xl 11/09/30
Wearshoe							



<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

FP018	12	
69931	12	xl

D3535-35	Manufactured	No	270	Each	15.0000	1	1
							xl 11/09/30
Wearshoe							



<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

FP018	14	
65926	1	
67598	1	
70815	12	xl
ST	1	
69756	1	

D3535-39	Manufactured	No	270	Each	22.0000	1	1
							xl 11/09/30
Wearshoe							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

FP018	22	
69759	9	
72159	13	xl

D3535-23	Manufactured	No	270	Each	21.0000	1	1
							xl 11/09/30
Wearshoe							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

FP021	21	
70818	10	xl
71581	11	

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Page 5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Monday, August 22, 2011 9:09:58 AM

Page 6

Work Order ID: 72957

Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 8/22/2011

Required Date: 8/29/2011

Start Qty: 1.00

Required Qty: 1.00

D3537-3

Manufactured No

270

Each

19.0000

1

1



Wearpad



HL 11/09/30

Location

Loc Qty

Loc Code

FP

13

70481

13

B72144

XL

FP017

6

35697

1

72686

5

D3537-1

Manufactured No

270

Each

36.0000

9

9



Wearpad



HL 11/09/30

Location

Loc Qty

Loc Code

FP001

29

69530

29

B72124

XL

FP017

7

69817

5

70686

2

AN960C10L

NAS1149C0332

Purchased

No

270

Each

0.0000

80

80



washer

XL 118354



(x80)

HL

11/09/30

AN960C416

NAS1149C0463

Purchased

No

270

Each

0.0000

1

1



washer

XL 117735



(x1)

HL

11/09/30

Monday, August 22, 2011 9:09:59 AM

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Page 6

W/O:		WORK ORDER CHANGES						
DATE	STEP		PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Monday, August 22, 2011 9:09:59 AM

Page 7

Work Order ID: 72957



Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 8/22/2011

Required Date: 8/29/2011

Start Qty: 1.00

Required Qty: 1.00

D3672-1
Phenolic Washer

Manufactured No

270 Each

1,260.000

2

2



HL 11/09/130

Location

Loc Qty

Loc Code

ST074

1258

64177

262

66821

496

72229

500

VZ

ST077

2

52505

2

AN3C4A

Purchased

No

270

Each

2,541.000

80

80



HL 11/09/130

BOLT

Location

Loc Qty

Loc Code

ST350

2541

1118983

V80

117313

2

117688

36

117795

1

117872

22

118012

20

118112

40

118451

1000

118628

1420

AN4C5A

Purchased

No

270

Each

489.0000

1

1



BOLT

Location

Loc Qty

Loc Code

FP-B

99

112243

99

X1

ST345

390

112243

390

HL 11/09/130

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Page 7

W/O:		WORK ORDER CHANGES						
DATE	STEP		PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Work Order ID: 72957



Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 8/22/2011

Required Date: 8/29/2011

Start Qty: 1.00

Required Qty: 1.00

D2646

Manufactured No

270

Each

97.0000

1

1



Aft Cap



xl 11/09/30

Location

Loc Qty

Loc Code

FP004

50

68280

50

FP006

5

62678

5

FP-4

38

70945

1

71070

37

fp5

4

71038

4

D3413-1

Manufactured No

270

Each

25.0000

1

1



Ring



xl 11/09/30

Location

Loc Qty

Loc Code

ST420

25

66387

1

70773

24

xl

W/O:			WORK ORDER CHANGES					
DATE	STEP		PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART

RELEASED

07.02.12

DEO ATTACHED

DESIGN CP	DRAWN BY PH	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. D3274	REV. D SHEET 1 OF 4
DATE 06.12.19		TITLE SKIDTUBE ASSEMBLY	SCALE NTS
A	04.03.15	NEW ISSUE	
B	04.08.09	MOVE SADDLE HOLE: 42.14 WAS 42.76	
C	05.03.16	ADD -043; NEW INSERTS	
D	06.12.19	NEW INSERTS, SS WEARSHOE + GASKET	

Qty -041	Qty -043	Part Number	Description
X		D3274-041	SKIDTUBE ASSEMBLY
	X	D3274-043	SKIDTUBE ASSEMBLY
1	1	D2600-1-240	EXTRUSION
1	1	D2646	AFT CAP
12	12	D2649	CROSS BOLT SPACER
12	37	D3275-1	CROSS BOLT SPACER
1	1	D3282-041	FLOAT WEB
1	1	D3285-1	CAP
1	1	D3413-1	RING
1	1	D3415-041	NUT PLATE
1	1	D3535-15	WEARSHOE
1	1	D3535-23	WEARSHOE
1	1	D3535-35	WEARSHOE
1	1	D3535-39	WEARSHOE
1	1	D3536-15	GASKET
1	1	D3536-23	GASKET
1	1	D3536-35	GASKET
1	1	D3536-39	GASKET
9	9	D3537-1	WEARPAD
1	1	D3537-3	WEARPAD
78	78	ALS7-1032-130	INSERT (or AKS4-1032-130, ALS4-1032-130, AELS-1032-130)
80	80	AN3C4A	BOLT
1	1	AN4C5A	BOLT
1	1	AN960C416	WASHER
80	80	AN960C10L	WASHER
2	2	CCR264SS3-3	RIVET
2	2	CR3212-4-03	RIVET
2	2	NAS1515H3L	WASHER

GENERAL NOTES:

1. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
2. DAMAGE TOLERANCE ON FWD BEND:
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 7 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
3. ALL HOLES DRILLED ON CENTERLINES.
4. BOND D3282-041 FLOAT WEB INTO D3274-1/-3 OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/291 ADHESIVE PER DART QSI 015. ENSURE HOLES LINE-UP.
5. WELDING TO BE DONE PER DART QSI 004.
6. FINISH: - ACID ETCH, ALODINE ASSEMBLY PER DART QSI 005 4.1
- POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
7. DRILL Ø0.297 HOLES FOR ALS7-1032-130 INSERTS USING DT3274-1T2 BEFORE FINISH. INSTALL ALS7-1032-130 INSERTS AFTER FINISH. SEAL WEARSHOE BOLTS WITH SIKAFLEX -241/-291.
8. SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.

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WORK ORDER

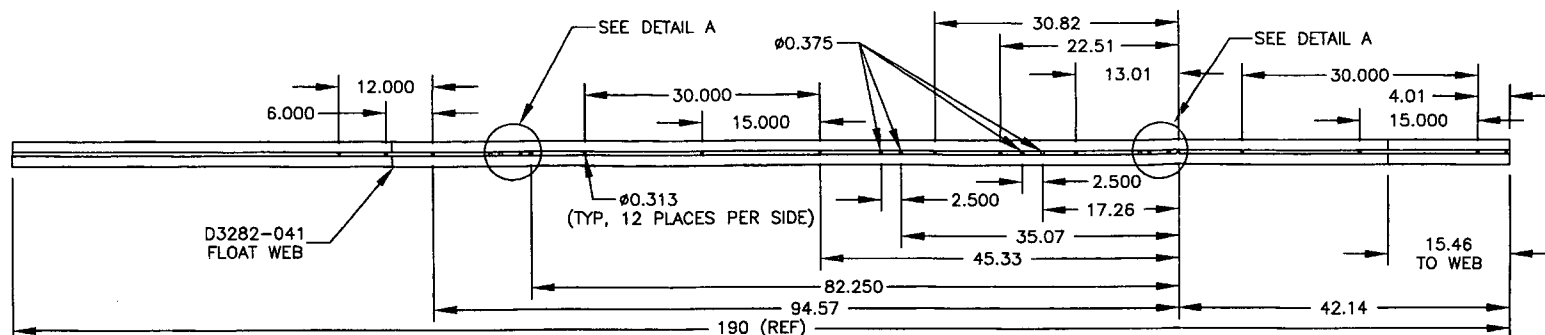
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11/08/02

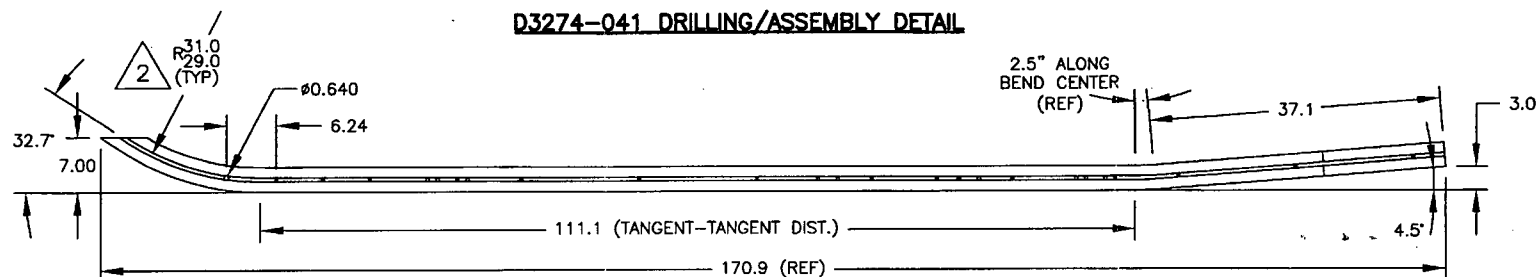
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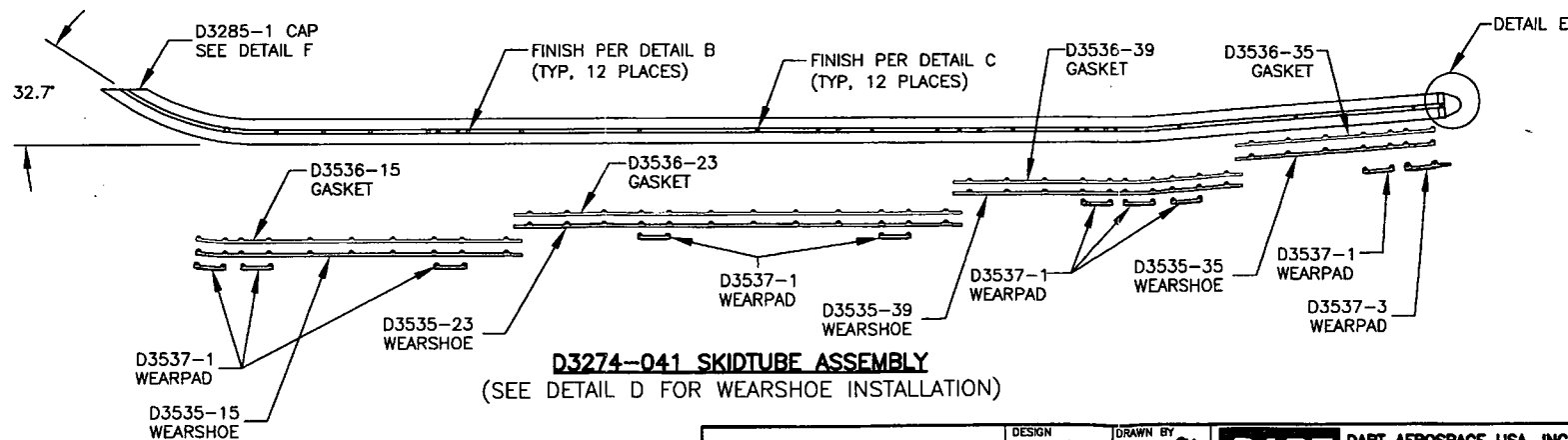
DEO ATTACHED



D3274-041 DRILLING/ASSEMBLY DETAIL



D3274-041 BEND/DRILLING DETAIL



D3274-041 SKIDTUBE ASSEMBLY
(SEE DETAIL D FOR WEARSHOE INSTALLATION)

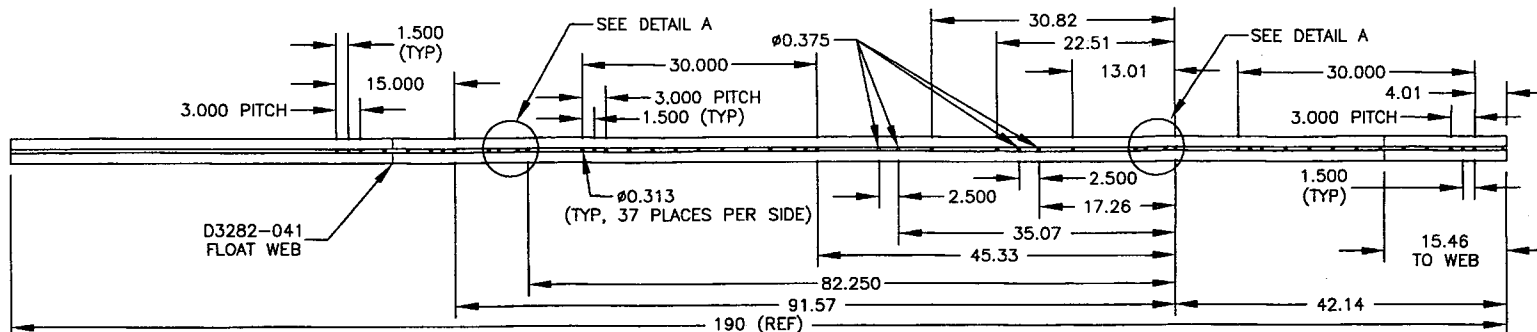
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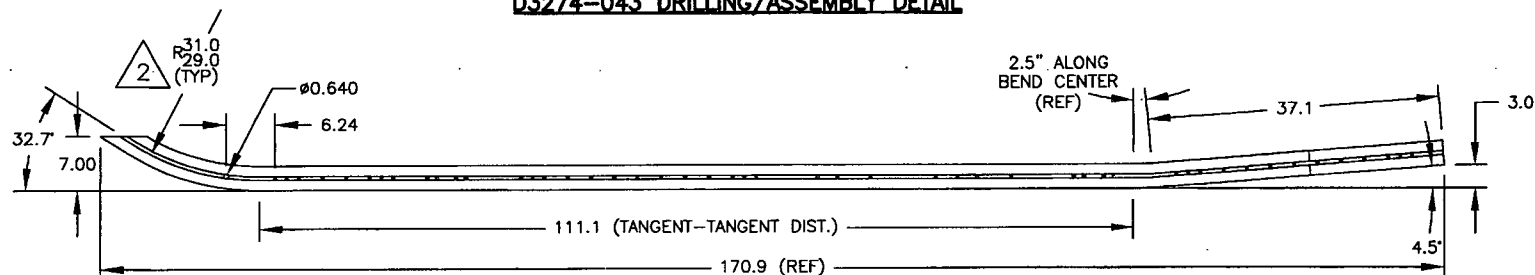
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CHECKED	CP	APPROVED	PH	DRAWING NO.	REV. 0
DATE	06.12.19	TITLE	SKIDTUBE ASSEMBLY	SHEET 2 OF 4	SCALE
				1:15	

12951

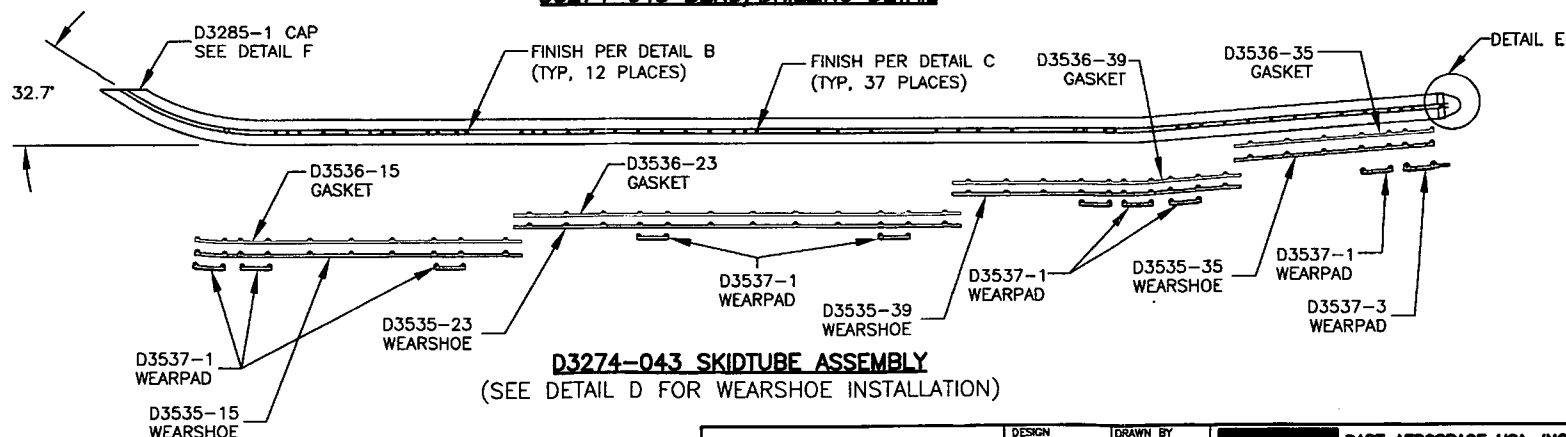
DEO ATTACHED



D3274-043 DRILLING/ASSEMBLY DETAIL



D3274-043 BEND/DRILLING DETAIL



D3274-043 SKIDTUBE ASSEMBLY
(SEE DETAIL D FOR WEARSHOE INSTALLATION)

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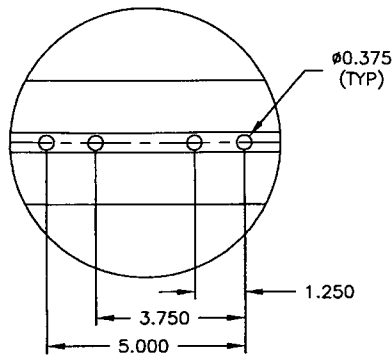
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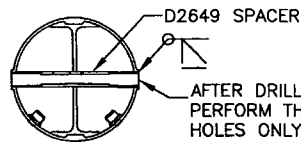
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DESIGN	CP	DRAWN BY	PH	DART DART AEROSPACE USA, INC. PORT HADLOCK, MA
CHECKED	#	APPROVED	#	
DATE	06.12.19	DRAWING NO.	D3274	REV. D SHEET 3 OF 4
TITLE			SKIDTUBE ASSEMBLY	SCALE 1:15

DETAIL A: DRILL DETAIL

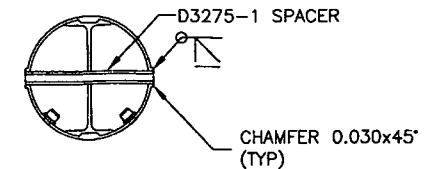


DETAIL B FOR $\phi 0.375$ HOLES ONLY



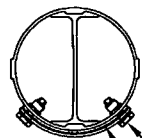
- AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR $\phi 0.375$
HOLES ONLY:
1. CHAMFER HOLE $0.030 \times 45^\circ$
 2. INSERT D2649 SPACER
 3. WELD INTO PLACE AND GRIND FLUSH
 4. C'BORE TO $\phi 0.313 \times 0.75$ DEEP

DETAIL C FOR $\phi 0.313$ HOLES ONLY



12957

DETAIL F: END FINISHING DETAIL



DETAIL D

- ALS7-1032-130 INSERT (1)
AN3C4A BOLT (1)
AN960C10L WASHER (1)
(78 PLACES)

GASKET/WEARSHOE/WEARPAD (REF)

- AN4C5A BOLT (1)
AN960C416 WASHER (1)
INSTALL WITH SIKAFLEX-241/-291

DETAIL E

- AN3C4A BOLT (1)
AN960C10L WASHER (1)
NAS1515H3L WASHER (1)
(2 PLACES)
INSTALL WITH SIKAFLEX-241/-291

D2646 CAP

SEAL WITH
SIKAFLEX-241/291
ADHESIVE

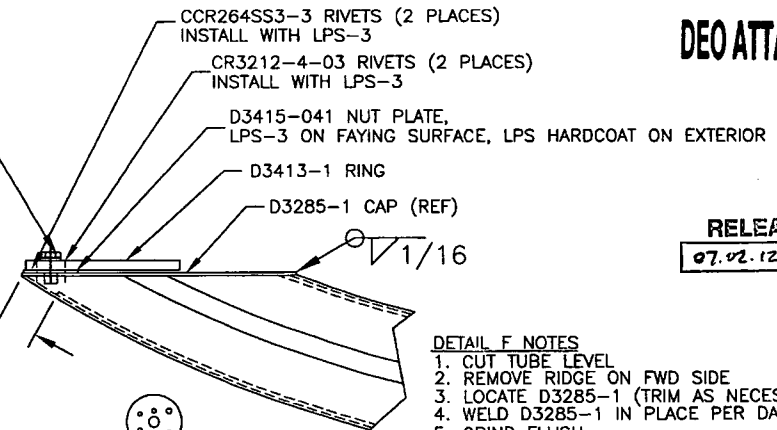
$\phi 0.208$ (2 PLACES)
DRILL PRIOR TO INSTALLING
D2646 CAP

BORE OUT END OF SKIDTUBE
TO 0.75 DEPTH AND 0.070 WALL

0.400

1.0
REMOVE RIDGE
ON INSIDE OF
SKIDTUBE LEAVE
0.070 MIN.

ORIENTATION
OF D3415-041



DEO ATTACHED

RELEASED

07.02.12

DETAIL F NOTES

1. CUT TUBE LEVEL
 2. REMOVE RIDGE ON FWD SIDE
 3. LOCATE D3285-1 (TRIM AS NECESSARY)
 4. WELD D3285-1 IN PLACE PER DART QSI 004
 5. GRIND FLUSH
 6. RIVET D3415-041 NUT PLATE IN PLACE
- NOTE: MASK THREADS IN D3415-041
PRIOR TO FINISH

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		CHECKED	APPROVED		SHEET 4 OF 4
		DATE		TITLE	SCALE
		06.12.19		SKIDTUBE ASSEMBLY	1:3

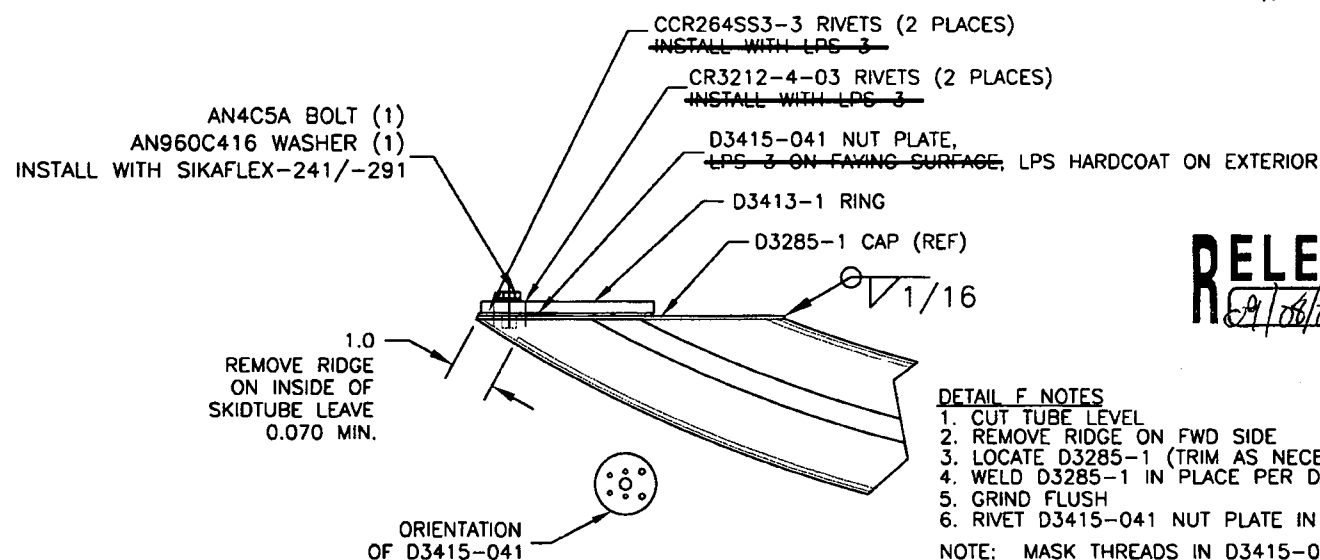
DRAWING NO. D3274	TITLE SKIDTUBE ASSEMBLY	REV. D	DART AEROSPACE USA, INC ENGINEERING ORDER	D.E.O. NO. D3274-D-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>UP</i>	CHECKED <i>L</i>	MFG. APPR. <i>M</i>	APPROVED <i>MAP</i>	DE APPR. <i>#</i>		
DATE 09.06.17	DATE 09.06.23	DATE 09/06/23	DATE 09/06/23	DATE 09.06.23		

LPS-3 IS NO LONGER USED DURING ASSEMBLY OF SKIDTUBE.

AMEND NOTE 8: "~~SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES 'LPS-3' AFTER FINISH AND INSTALLATION OF INSERTS.~~
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES 'LPS PROCYON' AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
POWDER COATING WITH MEK DEGREASER."

AMEND DETAIL F AS SHOWN:

DETAIL F: END FINISHING DETAIL



RELEASED
09/06/23

DETAIL F NOTES

1. CUT TUBE LEVEL
2. REMOVE RIDGE ON FWD SIDE
3. LOCATE D3285-1 (TRIM AS NECESSARY)
4. WELD D3285-1 IN PLACE PER DART QSI 004
5. GRIND FLUSH
6. RIVET D3415-041 NUT PLATE IN PLACE

NOTE: MASK THREADS IN D3415-041
PRIOR TO FINISH

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NO. 267

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Pat Ewers
Job number: 73212
Part number: A206-642-541
Description: Skid tube
Welding Process: Tig~~h~~ Mig~~h~~ Al
Base material: Aluminum
Current: AC~~✓~~ DC~~✓~~

TEST REQUIREMENTS AND RESULTS

Visual: pass~~✓~~ fail~~✓~~
Penetration: pass~~✓~~ fail~~✓~~

UNACCEPTABLE

Cracks: pass~~✓~~ fail~~✓~~
Undercut: pass~~✓~~ fail~~✓~~
Pin holes: pass~~✓~~ fail~~✓~~
Overlap (cold lap): pass~~✓~~ fail~~✓~~
Porosity (surface): pass~~✓~~ fail~~✓~~
Coloration: pass~~✓~~ fail~~✓~~

Qualifier David Aual Date of Test Coupon 11.09.26
Welder Pat Ewers Date of Test Coupon 11.09.26

The above named individual is qualified in accordance with AWS D17.1.2001 to weld

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries